WHAT IS CLAIMED IS:

1. In a method for the preparation of a consolidated wood fiber article useful as a core component for a structural member, comprising the steps of:

(a) combining refined wood fibers and a binder resin and compressing the fibers and binder resin together sufficiently to form a pre-form mat having opposed major surfaces and having sufficient structural integrity to place the pre-form into a mold cavity;

(b) placing the pre-form from step (a) into a mold cavity shaped to form at least one interior depression into at least one major surface of the pre-form;

(c) compressing the pre-from in said cavity under elevated temperature to cure said binder resin and consolidate said cellulosic material into a structurally sound core component, wherein at least one of said major surfaces includes at least one interior depression formed in the mold cavity, said depression projecting inwardly from said major surface; and

(d) removing said core component from said mold cavity;

the improvement comprising: providing, before step (c), added moisture in at least a surface layer of the pre-form that is molded to include said depression, such that the pre-form placed in the mold cavity contains at least 2% by weight

more moisture in a depression-receiving surface layer than at a center of the thickness of the pre-form, based on the dry weight of the pre-form, said surface layer defined as the surface 10% of the thickness of the pre-form.

2. The method of claim 1, wherein:

the core component has a density in the range of about 10 lbs./ft^3 to about 30 lbs./ft^3.

3. The method of claim 1, wherein the depression in said major surface comprises:

(i) a first, inclined depression wall having an upper surface integral with, and extending downwardly from, said major plane;

(ii) a depression bottom wall having an upper surface integral with, and extending from, said upper surface of said first inclined wall; and

(iii) a second, inclined depression wall having an upper surface integral with, and extending from, both of (A) said depression bottom wall surface and (B) said major plane.

4. The method of claim 1, wherein both major surfaces include at least one depression.

5. The method of claim 4, wherein both major surfaces include a surface layer containing added moisture in an amount in the range of 2% to about 32% more moisture, on average, in the surface layers than an average moisture content at the center of the thickness of the pre-form when the pre-form is placed in the mold cavity.

6. The method of claim 5, wherein each surface layer contains an average moisture content that is 4% to 32% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

7. The method of claim 6, wherein each surface layer contains an average moisture content that is 8% to 20% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

8. The method of claim 7, wherein each surface layer contains an average moisture content that is 12% to 18% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

9. The method of claim 6, wherein the average moisture content at the center of the thickness of the pre-form, when the pre-form is placed in the mold cavity, is in the range of 2% to 16%, based on the dry weight of the pre-form.

10. The method of claim 7, wherein the average moisture content at the center of the thickness of the pre-form, when the pre-form is placed in the mold cavity, is in the range of 5% to 8%, based on the dry weight of the pre-form.

11. A method for the preparation of a consolidated cellulosic article useful as a core component for a structural member defining an internal void having a depth varying at two or more locations thereof, comprising the steps of:

(a) combining refined wood fibers and a binder resin and compressing the fibers and binder resin together sufficiently to form a pre-form mat having opposed major surfaces and having sufficient structural integrity to place the pre-form into a mold cavity;

(b) surface wetting both major surfaces of said pre-form such that a surface layer of each major surface contains at least 2% more moisture than the pre-form at a mid-pont between said opposed major surfaces;

(c) placing the surface-wetted pre-form of step (b) into a mold cavity shaped to form at least one interior depression in each of said major surfaces of said pre-form;

(d) molding the pre-form in said mold cavity under elevated temperature to cure said binder resin and consolidate said refined wood fibers into a structurally sound core component

having a shape which corresponds to the shape of said mold cavity; and

wherein the pre-form is molded to form a core component having:

(i) two major exterior surfaces defining respective front and rear sides of said core component, and wherein the rear side of the component is the mirror image of the front side; and

(ii) at least one depression in each major surface projecting inwardly therefrom;

wherein said core component is a solid, integral structure formed from molded mat material containing at least 80% by weight refined wood fiber, based on the total dry weight of the core component, and said depressions are located in a predetermined arrangement to accommodate each of said variations in depth of said structural member.

12. The method of claim 11, wherein:

the resin binder is included in the pre-form mat in an amount of about 1% to about 15%, based on the total dry weight of the mat.

13. The method of claim 11, wherein both major surfaces include at least one depression

14. The method of claim 13, wherein both major surfaces include a surface layer containing added moisture in an amount in the range of 2% to 32% more moisture, on average, in the surface layers, than an average moisture content at the center of the thickness of the pre-form when the pre-form is placed in the mold cavity.

15. The method of claim 14, wherein each surface layer contains an average moisture content that is 4% to 32% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

16. The method of claim 15, wherein each surface layer contains an average moisture content that is 8% to 20% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

17. The method of claim 16, wherein each surface layer contains an average moisture content that is 12% to 18% by weight greater than the average moisture content at a center of the thickness of the pre-form, when placed in the mold cavity.

18. The method of claim 15, wherein the average moisture content at the center of the thickness of the pre-form, when the pre-form is placed in the mold cavity, is in the range of 2% to 16%, based on the dry weight of the pre-form.

19. The method of claim 16, wherein the average moisture content at the center of the thickness of the pre-form, when the pre-form is placed in the mold cavity, is in the range of 5% to 8%, based on the dry weight of the pre-form.

20. A method for the preparation of a composite cellulosic article useful as a core component for a structural member, comprising the steps of:

(a) combining cellulosic fibers and a binder resin to form a mat having a moisture content of 2-16% by weight, based on the dry weight of the mat, said mat having two opposed major surfaces;

(b) surface wetting both major surfaces of said mat from step (a) such that a surface layer having a depth of 10% of the total mat thickness, at each major surface, contains at least 2% more moisture than the mat at a mid-pont between said opposed major surfaces;

(c) subjecting said surface-wetted mat to elevated temperature and pressure to cure said binder resin and form said mat into a structurally sound core component while providing at least one interior depression in each of said major surfaces, said depressions projecting inwardly from said opposed major surfaces, such that the rear side of the core component is the mirror image of the front side.

21. The method of claim 20, wherein each wetted surface layer has an average moisture content of about 4% to about 20% more than an average moisture content at a center of the thickness of the mat when placed in the mold cavity.

22. The method of claim 20, wherein:

said core component has a density in the range of about 10 lbs./ft^3 to about 30 lbs./ft^3.

23. The method of claim 20, wherein the depressions in said core component comprise:

(i) a first, inclined depression wall having an upper surface integral with, and extending downwardly from, said major plane;

(ii) a depression bottom wall having an upper surface integral with, and extending from, said upper surface of said first inclined wall; and

(iii) a second, inclined depression wall having an upper surface integral with, and extending from, both of (A) said depression bottom wall surface and (B) said major plane.

24. A method for the preparation of a composite cellulosic article useful as a core component for a structural member defining an internal void having a depth varying at two or more locations thereof, comprising the steps of:

(a) combining cellulosic fibers having at least 2% by weight moisture, based on the dry weight of the cellulosic fibers, and a binder resin to form a wet mat having two opposed major surfaces;

(b) surface wetting both major surfaces of said wet mat such that surface layers, defined as the upper 10% of the mat thickness and the lower 10% of the mat thickness, contain an average of at least 2% more moisture than the average moisture content of the wet mat at a mid-pont between said opposed major surfaces;

(c) subjecting said surface-wetted mat from step (b) to elevated temperature and pressure to cure said binder resin and form said mat into a structurally sound core component while providing at least one interior depression in each of said major surfaces, said depressions projecting inwardly from said opposed major surfaces, such that a rear side of the core component is the mirror image of a front side; and

(d) molding said wet mat from step (c) to include:

(i) two major exterior surfaces defining respective front and rear sides of said core component, and wherein the rear side of the component is the mirror image of the front side; and

(ii) at least one depression in each major surface projecting inwardly therefrom;

wherein said core component is a solid, integral structure formed from molded mat material containing at least 80% by weight refined cellulosic fiber, based on the total weight of the core component, and said depressions are located in a predetermined arrangement to accommodate each of said variations in depth of said structural member.

25. The method of claim 24, wherein:

said cellulosic fibers comprise fibrillated cellulosic fibers and said core component has a density in the range of about 10 lbs./ft^3 to about 30 lbs./ft^3.

26. The method of claim 24, wherein both major surfaces include a surface layer containing added moisture in an amount in the range of 2% to 32% more moisture, on average, in the surface layers, than an average moisture content at the center of the thickness of the mat when the mat is placed in the mold cavity.

27. The method of claim 26, wherein each surface layer contains an average moisture content that is 4% to 32% by weight greater than the average moisture content at a center of the thickness of the mat, when placed in the mold cavity.

28. The method of claim 27, wherein each surface layer contains an average moisture content that is 8% to 20% by weight greater than the average moisture content at a center of the thickness of the mat, when placed in the mold cavity.

29. The method of claim 28, wherein each surface layer contains an average moisture content that is 12% to 18% by weight greater than the average moisture content at a center of the thickness of the mat, when placed in the mold cavity.

30. The method of claim 27, wherein the average moisture content at the center of the thickness of the mat, when the mat is placed in the mold cavity, is in the range of 2% to 16%, based on the dry weight of the mat.

31. The method of claim 28, wherein the average moisture content at the center of the thickness of the mat, when the mat is placed in the mold cavity, is in the range of 5% to 8%, based on the dry weight of the mat.

32. A method for the preparation of a composite cellulosic article useful as a core component for a structural member defining an internal void having a depth varying at two or more locations thereof, comprising the steps of:

(a) combining cellulosic fibers having at least 2% by weight moisture, based on the dry weight of the cellulosic fibers, and a binder resin to form a wet mat having two opposed major surfaces;

(b) surface wetting an upper major surfaces of said wet mat such that a surface layer, defined as the upper 10% of the mat thickness, contains an average of at least 2% more moisture than the average moisture content of the wet mat at a mid-pont between said opposed major surfaces;

(c) subjecting said upper surface-wetted mat from step (b) to elevated temperature and pressure to cure said binder resin and form said mat into a structurally sound core component while providing at least one interior depression in each of said major surfaces, said depressions projecting inwardly from said opposed major surfaces, such that a rear side of the core component is the mirror image of a front side;

(d) molding said wet mat from step (c) to include:

(i) two major exterior surfaces defining respective front and rear sides of said core component, and wherein the rear side of the component is the mirror image of the front side; and

(ii) at least one depression in each major surface projecting inwardly therefrom; and

(e) applying a post-press sealer to the lower major surface of said core component in the amount of about 1-10 lbs./ft^2 to strengthen the lower surface of the core component;

wherein said core component is a solid, integral structure formed from molded mat material containing at least 80% by weight refined cellulosic fiber, based on the total weight of the core component, and said depressions are located in a predetermined arrangement to accommodate each of said variations in depth of said structural member.